UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/470,571	06/06/1995	JOHN C. HARVEY	5634.261	7586

21967   7590   11/24/2004

HUNTON & WILLIAMS LLP
INTELLECTUAL PROPERTY DEPARTMENT
1900 K STREET, N.W.
SUITE 1200
WASHINGTON, DC 20006-1109

EXAMINER
HARVEY, DAVID E

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Advisory Action		08/470,571	HARVEY ET AL.
		Examiner	Art Unit
		DAVID E HARVEY	2614

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 20 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may <u>only</u> be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

<u>PERIOD FOR REPLY</u> [check either a) or b)]

a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on <u>20 September 2004</u>. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

    (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

    (b) ☐ they raise the issue of new matter (see Note below);

    (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

    (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

    NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *SEE ATTACHMENT*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

    The status of the claim(s) is (or will be) as follows:

    Claim(s) allowed: _____.

    Claim(s) objected to: _____.

    Claim(s) rejected: <u>ALL</u>.

    Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

DAVID E HARVEY
Primary Examiner
Art Unit: 2614

I. Issues Pertaining to the *True* Scope of the Claim Terminology:

1) The *"user specific"* terminology:

A) Applicant's 1981 parent specification as originally filed used the term "unique", i.e. within the claims and the written description, to characterize the "user data" that was entered by the users at each receiver station, and to characterize the display/overlay data that was locally generated at each receiver station from said entered user data. Subsequently, in a 312 amendment filed in applicants' 1981 parent application S.N. 06/829,531, applicants alleged that the "unique" terminology was an inaccurate characterization of the user data. That is, applicants alleged that the user data entered at least some of the stations (and the display/overlay generated therefrom) was *inherently* the same. Based on this allegation, applicants proceeded to amend the written description and claims of the 1981 parent specification, via said 312 amendment, to replace the alleged inaccurate "unique" terminology with alleged more accurate "specific" terminology. According to applicants, the "specific" terminology now accurately encompassed the *alleged inherent*[1] situations in which the entered "user data" at the different receiver stations/locations was the "same" and, therefore, merely "user specific"; i.e. not "unique" as originally described and claimed.

B) The noted "user specific" terminology, first introduced via the above noted 312 amendment of the parent specification, has been carried forward into the instant 1987 CIP specification and claims dependent thereon. There is nothing of record to suggest that the meaning of this terminology has changed during its migration to the instant 1987 CIP specification; i.e. there is no indication that the "user specific" terminology should be interpreted any differently than the way in which it was coined and introduced via the 312 amendment entered in the 1981 parent specification. Further, applicants claim under section 120 back to the original 1981 filing date for pending claims which contains this "user specific" terminology seem to refute a different interpretation of this terminology;

---

[1] If this were not the case, then changing "unique" to "specific" represents the improper insertion of "New Matter".

C) ___Throughout the present prosecution___, **the examiner always maintained that the input of "user specific" data recited in applicant's claims properly and fairly reads on the input of teletext page selection data to conventional teletext receiving stations. That is, teletext page selection data entered by each user at each teletext receiving station, while not necessarily "unique" to the user, is nonetheless "specific" to the user. For example:**

> **1) Each of the entered teletext page numbers is "user specific" in that each entered number is personally selected and entered by the respective user to identify the specific page of teletext data that is "specifically" desired and "specifically" requested by the respective user who entered it into their respective videotex receiver station;**

> **2) Each of the entered teletext page numbers is also "user specific" in that each number comprises a digital code that has been "specified", and individually keyed in, by the user at a respective receiver station;**

> **3) etc,...**

D) Ironically, in the latest response (note part "E."), applicant now goes so far as to suggest that the "specific" terminology of the instant claims should be read as being synonymous with the alleged inaccurate "unique" terminology which it replaced [see parts "A" and "B" of this section]:

> "As properly construed, there is nothing 'user specific' about a page number entered by a user in a teletext system. All users of a given teletext system would enter the ___same___ page number to get the ___same___ teletext page. No page number can possibly be <u>unique</u> to a user."[2] **(emphasis added)**

> **[Note the second full paragraph on the page 22 of the response filed 9/2004]**

---

[2] That is, applicants replaced the "unique" terminology with "specific" terminology for the purpose of covering situations in which the entered data was the "same." Hence, applicants' current suggestion that the "specific" terminology requires the entered "user specific" data to be different/"unique" makes no sense.

With respect to applicants' latest argument, the following is noted:

1) Contrary to applicants' latest suggestion, the record shows that the recited "user specific" terminology was intended to cover situation in which the user data entered at different station was "same" and not "unique";

2) The fact that a user of a conventional teletext system enters the same teletext page number into his/her respective receiver when his/her desires the *same* "user specific" teletext page as desired by another user, is irrelevant to the issue at hand. That is, regardless of the value of the page data that is entered, each user of conventional teletext systems desires their own "user specific" page of teletext data and enters their own corresponding "user specific" page number into their respective receiver station to identify the "specific" page that they desire (i.e. wherein, at any given time, the page desired and selected by a user may be the *same* or *unique* with respect to the "user specific" pages desired and selected by the other users) [3].
Further, even in the case of applicants' own system respective users must enter the *same* portfolio data to generate the *same* overlay/display in situation when their respective portfolios are the *same* [i.e. the reason why applicants amended their original specification by replacing the alleged inaccurate "unique" terminology with the alleged more accurate "specific" terminology via said 312 amendment]. Thus, for applicant now to suggest that the "user specific" terminology should be read as excluding situations in which the user entered data can be the *same*, and not *unique*, is nonsense [i.e. it is contrary to, and flies in the face of, the instant prosecution history].

3) The "user specific" terminology is little more than a label. This label has been properly and fairly interpreted by the instant examiner, consistently throughout the extensive file history, as reading on the page selection process of applied teletext "prior art" for the reasons discussed above and

---

[3] The entered teletext page number is "unique" to the user whenever a user's selected/inputted page number differs from the page numbers selected/inputted by any other of the users (i.e. which is not an improbable situation given the fact that a typical teletext system typically carries hundreds, even thousands, of pages of popular and unpopular teletext data.

throughout the record. Each entered page number represents respective "user specific" page selection data!

E) In lines 8-10 on page 20 of the response filed 9/2004 in SN 08/470571, applicants' now allege that the recited term "user specific data" (and variants thereof) should be construed to mean:

> "[D]ata that relates to a particular receiver station or to the user or users of that receiver station, and which may be, but does not necessarily have to be unique to that particular station or users". [4]

Even if adopted, this definition fails to distinguish that which is claimed over the applied teletext prior art. That is, the "user data" that is inputted by a user of a teletext receiver station in order to request the receipt and display of the desired page of teletext data, is "user specific data" even in the context of applicants own cited definition; i.e. the data that is entered by the user of a teletext receiver clearly "relates" to the particular user in that it literally identifies the specific page of teletext data that said user desires and that said user has specifically requested. What is more "user specific" than input data that is actually specified by the user? Further, while not necessarily at issue, applicants are correct in that the examiner does believe that the "user specific data" label is itself so broad, even as defined above by applicants, that it:

> "[I]nvites rejections based on references that simply disclose user selection of an option from a list of available choices"
> [note lines 2 and 3 on page 20 of the response filed 9/2004]

That is, the examiner believes that "data" that is inputted by a user to identify the "option" that he/she has selected, even if made from a limited list of choices, is "user specific data". That is, even In accordance with applicant's own definition, such input data "relates to the user" in that it is inputted by the user and it represents the specific choice/desire of that user. Additionally, such "user specific selection data" may even be "unique" to the given user depending on the selections/choices made by the "other" users (i.e. depending on whether or not any of said other users made inputted data corresponding to the same choice/selection).

---

[4] Here, it is interesting to note that applicants wish to broadly define the "user specific" terminology in a way that includes/encompasses "receiver specific" data.

F) Despite plentiful opportunity afforded by an extensive prosecution history, applicants declined to offer any meaningful argument/amendment to "narrow"/limit the above noted proper and fair reading of the "user specific" terminology in a way that overcomes the applied videotext "prior art".

2) The "locally generated" terminology:

A) Applicants continue to allege that videotex (e.g. teletext) images are not "locally generated" images. Based on this allegation, applicants continue to argue that the recited "locally generated" terminology distinguishes the claims over the applied videotex prior art. The examiner continues to disagree:

> **1.** Contrary to applicant's position, the "prior art" of record shows that those of ordinary skill in the art actually recognized videotex images (e.g. teletext images) as having been images that were "locally generated" at the receiver station locations. This "prior art" evidences the fact that a proper and fair reading of the "locally generated" terminology, as ***explicitly*** understood by those of ordinary skill in the art at the time of applicant's alleged invention, literally includes/encompasses videotex image generation.
>
> > **"The first step in teletext service is the translation by a teletext editor of text, pictorial information and display attributes (such as color, flashing characters and so on) into a *series of instructions* to be transmitted to the teletext decoder. The instructions for each page in the teletext 'library' are then broadcast continuously on a revolving basis by multiplexing the data into the vertical blanking interval. The user accesses a desired page of teletext information by entering the page number, e.g. by pressing the appropriate buttons on a control unit. The teletext decoder then selects the page from the revolving transmission, stores the coded information in memory, processes that information to the extent necessary for display, and produces the page on the television screen. Where captioning is transmitted, the decoder will superimpose the captioning over the normal television picture" (emphasis added)**
> > [Page 5 of the 3/26/1981 "Petition For Rulemaking" file with the FCC by the United Kingdom Teletext Industry]

"[Videotex] data transmitted do not represent directly the picture which is generated in the receiver, but encoded instructions to the receiving decoder"
[Lines 8-10 under the heading "1-Scope" on the first page of the article "The Concept of a Universal 'Teletext' (Broadcast and Interactive Videotex) Decoder, Microprocessor Based]

"The [teletext] receiving equipment can be conventionally thought of as consisting of three sections: a) signal acquisition, b) memory, c) *display generation.* The signal is acquired and suitably processed before being loaded into memory. Memory is repeatedly accessed by the display generation section *to obtain the instructions* which direct it to *create the images of alphanumeric and graphic characters* and place them on the screen" (emphasis added)
[The first paragraph under the heading "Receiving Equipment Options" on page 539 of the 1980 article "THE ROLE OF THE TELEVISION RECEIVER MANUFACTURERE IN THE UNITED STATES" by Ciciora et al.]

"It must be clearly held in mind that the [teletext] image displayed on the CRT *is synthetic video and that the synthesis is done locally*" (emphasis added)
[The first two lines under the heading "Synthetic Video" on page 545 of the 1980 article "THE ROLE OF THE TELEVISION RECEIVER MANUFACTURERE IN THE UNITED STATES" by Ciciora et al.]

"In a picture display device for displaying a mixed picture signal which signal comprises a conventionally received television picture signal and *a locally generated signal, such as a teletext sub-title...*"
[The first 6 lines in the abstract of GB 2,062,401 patent document to Korver]

"Picture display devices of such type, have a picture screen on which a mixed picture signal can be displayed are known. By means thereof pictures can be displayed in which *locally generated* characters, drawing elements and similar items can be superimposed on a normal picture, for example a moving picture transmitted, for example, by a transmitter and received in a conventional manner. *Such a signal can be generated by, for example, a teletext decoder in the display device*" (emphasis added)
[The first paragraph under the heading "Background of the Invention" in column 1 of US Patent #4,347,532 to Korver]

2. Despite the fact that those of ordinary skill in the art recognized, explicitly, teletext images as being "locally generated" at the receiver stations, applicants continue to insist that they are not "locally generated" images. In part "D" of applicant's latest response, applicant now argues that teletext images are not "locally generated" because:

> **"[T]eletext is not based on user specific data"**
> [Note line 15 on page 18].

The following is noted:

> **a.** Applicants' position is flawed because there is nothing inherent and/or implicit in the term "locally generated" which required the local generation to be "user specific" as is now appears to be alleged by applicants' (i.e. "locally generated" images may or may not be "user specific");
>
> **b.** Contrary to applicant's allegation, teletext images:
>
>> **1.** Are not only "locally generated" at the receiver stations (see part "1." of this section); and
>>
>> **2.** But are locally generated "*based on* user specific data", i.e. data representing user specific requests, inputted into the receiver stations by the respective users (see part "1)" of this paragraph).[5]

3. Again, despite plentiful opportunity afforded applicants via an extensive prosecution history, applicants declined to offer any meaningful argument/amendment that "narrows" the above noted proper and fair reading of the "locally generated" terminology in a way which "might" overcome the applied videotext "prior art" of record. Applicants' merely speculate that such a definition exists.

---

[5]   In the case of applicant's alleged invention as described, the information content of the "locally generated" image is itself "locally generated" by locally processing "user specific data" that is supplied to the receiver station. The "based on" terminology of the claims, however, does not convey this feature and it is not so limited.

3) The "signal word" terminology of applicant's claims/specification:

A) Within the instant 1987 CIP specification, the "signal word" terminology takes on a different meaning depending on the context in which it appears and/or is used:

1) In some instances within the instant 1987 CIP specification, the "signal word" terminology is defined and used in the same manner as it was defined and used within the 1981 parent specification to refer to a discrete appearance of an embedded signal within a transmission:

> "The term 'signal word' hereinafter means one full discrete appearance of a signal as embedded at one time in one location on a transmission. Examples of signal words are a string of one or more digital data bits encoded on a single line of video or sequentially in audio. Such strings may or may not have predetermined bits identifying the beginnings and ends of words. Signal words may contain parts of signal units, whole signal units, or groups of partial or whole signal units or combinations."

[e.g. Note lines 52-61 of column 8 in US #5,233,654]

2) In other instances within the instant 1987 CIP specification, the "signal word" terminology is used in a conventional manner completely different from the definition set forth above (i.e. completely different from the way it was originally defined and used within the 1981 parent specification). Namely, in the 1987 CIP specification, "signal word" is also used to refer to "bytes"/*words* of computer-type digital data [e.g. note lines 62-66 of column 30 in US #5,233,654];

B) Noting, again, that applicants have alleged that the instant claims are entitled to section 120 priority back to the 1981 filing date, it would appear that the "signal word" recitation must at least be include, if not limited to, the 1981 meaning/definition noted above:

> "The term 'signal word' hereinafter means one full discrete appearance of a signal as embedded at one time in one location on a transmission. Examples of

> signal words are a string of one or more digital data
> bits encoded on a single line of video..."

Given this broad definition, the "signal word" terminology itself does absolutely nothing to distinguish that which is now claimed from the applied teletext "prior art" being that teletext data, by its very nature, comprises respective strings of data bits each of which is encoded and embedded within a respective designated line of a TV video signal transmission. As if this were not enough to refute applicants position that the "signal word" terminology somehow distinguishes that which is claimed from the teletext "prior art", it is noted that said conventional teletext data strings themselves were comprised of encoded bytes/"words" of computer-type digital data [i.e. in accordance with the "new" meaning of "signal word" that has been introduced via the drafting and filing of the instant 1987 CIP specification].

C) Despite the plentiful opportunity afforded by an extensive prosecution history, applicants have declined to offer any meaningful argument/amendment to "narrow" the noted proper and fair reading of the "signal word" terminology in a way that overcomes the applied teletext "prior art".

4) The "discrete signal" and the "organize" terminology of applicant's claims/specification:

A) Throughout the latest response filed 9/2004, Applicants characterize the "organizing" terminology of their claims as referring specifically to the following *process*:

> "In applicants' invention, 'signals may convey information in discrete words, transmitted at separate times or in separate location, that the receiver must assemble in order to receive one complete instruction.' Spec. p. 14, ll. 22-25. As the discrete words may be transmitted at various and varying locations, the mere detection of the signal words is insufficient to give meaning to the signal. This organization occurs at buffer /comparator, 8. Spec. p. 30, ll7-16 ('Buffer/comparator, 8, receives said signals from said decoders and other signals from other inputs and organizes the received information in a predetermined fashion')."

Even if true, such is irrelevant to the issues at hand being that none of the specific "organizing" process cited above has been recited in the claims. That is, the scope of the "organizing" terminology, standing alone in the pending claims, is far broader than the limited discussion noted above.

B) Throughout the latest response filed 9/2004, applicants alleges that their invention is distinguished over the applied videotext prior art of record being that, as described in the specification, the recited "organizing" step "may be" used to "organize" data that is conveyed at "various and varying locations". Clearly applicants are reading limitations into the claims that are simply not there; i.e. where are the "various and varying position" ever recited in any of the claims?

C) Applicants' continue to assert that units of conventional Teletext information, i.e. complete teletext "pages", were not transmitted as a plurality of "discrete signals" which had to be "organized"/re-organized on the receiver side of the TV network to recover said complete pages.

> "[C]onventional teletext decoders do not organize incoming packets as asserted by the Office action"
> *[Lines 20 and 21 on page 19 of applicants' latest response]*

Applicants' position continues to portray an unrealistically low level of skill in the art.

Conventional Teletext information, by definition, comprised digitally coded data that was transmitted through a conventional TV network via vacant horizontal line periods of a TV signal transmission. Given the limited bandwidth inherent in each vacant line period of a TV signal transmission, each line period is only capable of carrying a limited amount of Teletext data (e.g. at most, data equivalent to about a row of coded character information). Therefor, each complete "unit"/page of Teletext information was necessarily divided up into a plurality of *"discrete packet/block signals"* each of a size that could be conveyed via the limited bandwidth of a respective one of a plurality of the vacant horizontal line periods. At each of the receivers, a plurality of these "discrete packet/block signals" had to be extracted and "*organized*" back into complete units/pages of recovered teletext data. Each recovered unit/page of data was processed at a respective receiver station to, for example, "locally generate" a "user specific" teletext image for display thereat.

> "In a typical Teletext transmission, each page of message information would contain up to 24 rows of characters, with each row containing up to 40 characters…………………… . . ……………………………………………………………………………… …………………………… . . ………………………………………………………………………… . . ……………………… .
>
>   In view of the restricted transmission time which is available for transmitting the coded data pulses representing message information, for instance, sufficient time to transmit coded pulses for only one character row during a television line in the field-blanking interval, character data for a page of message information has to be stored row-by-row in the data store 15 over a relatively large number of television fields. This storing of character data row-by-row in the data store 15 is under control of the address codes received from the data acquisition circuit 12 over the q-bit channel link.
>   The television receiver arrangement includes a character generator arrangement 16 embodying the present invention. This arrangement 16 is responsive to the character data stored in the data store 15 to produce character generating data which can be used to derive what is effectively a new picture signal for displaying the characters represented by the stored character data"
> *[Lines 11-39 in column 8 of US Patent #4,323,892 filed 2/11/1980]*

> "In a Teletext transmission system, data is transmitted in digital form during lines in the field blanking period of a composite video signal of a television transmission. On reception, the information is decoded and utilized to provide a display comprising a page having a predetermined number of rows of information in alphanumeric or graphics

form. The data is received in blocks comprising information digits and each block has an associated group of address digits so that each block can be directed to an appropriate storage location in a first store regardless of the order in which the data blocks are transmitted. The contents of the first store can then be transferred in address order into a larger capacity serial store readily for use in generating the display. *Thus it is possible for a number of pages of information data to be correctly assembled in serial row order, ready for display generation, in a manner accommodating non-transmitted blank rows."* (emphasis added) *[Abstract of US Patent #4,099,259 filed 10/1976]*

"The data transmissions occur row by row at a relatively high data rate, which dictates that high speed **means for storing and reorganizing the transmitted data to page form must be provided at the receiver"** (emphasis added)
[Lines 34-37 in column 1 of US Patent #4,099,259]

"In such an application the data store accepts the incoming data and **organizes** it into rows of a page in accordance with the input addresses, and then transfers the page of data into selected serial storage. After transfer, the data store is cleared and made available to receive another page and process of acceptance, **storage in organized form** and transfer to another part of the multi-page memory is repeated" (emphasis added)
[The paragraph that begins in lines 62-68 in column 2 of US Patent #4,099,259]

D) Once again, despite the plentiful opportunity afforded by an extensive prosecution history, applicants have declined to offer any meaningful argument/amendment to "narrow" the noted proper and fair reading of the "discrete signal" and "organized" terminology in a way that distinguishes it from the "discrete packet/block signals" of the Teletext prior art which were received, extracted, and "organized" by the Teletext receivers into complete "pages" of data that were used to "locally generate" the user "specific"/requested teletext images that were to be displayed thereat.

5) The "subscriber" terminology:

A) The examiner maintains that the recited "subscriber" terminology of the claims is, at best, an indication of intended use. That is, at best, it merely indicates that the recited receiver station was to be used/located within a subscription TV/video system environment. It is notes that the Viewdata systems of the prior art were inherently subscription based systems, whereas the teletext system were known to have been subscription based and were also known to have been located within subscription based TV environments (i.e. CATV, satellite, etc,...).

II. With respect to specific ones of the arguments raised by applicants concerning the section 102 rejections:

A) Concerning the rejection of claim 187 under section 102 (b) by Oono et al.:

1) It is maintained that *fair* readings of the recited "user specific", "discrete signal", "locally generated", and "organized" terminologies of the claim contribute nothing to distinguishing that which is claimed over videotext "prior art" [NOTE: Section I of this office action concerning the "fair reading" of this terminology];

2) It is maintained that <u>Oono et al</u> describes a videotex system in which:

    a) A keyboard at each receiver station (e.g. @ 9 of figure 3) is used to "supply information", representing keyboard actuations, to the receiver from the station's user;

    b) Circuitry at the receiver (e.g. @ 9 and/or 3) is used to derive "user specific subscriber datum" from the "supplied information" wherein this derived "user specific subscriber datum" represents, among other things, user specific requests for teletext information;[6]

    c) Circuitry within the receiver (e.g. @ 3) inherently exists for temporarily storing/holding the so derived "user specific subscriber datum" for further processing [inherent being, that if this were not the case, the datum would be instantly lost upon derivation];

    d) Circuitry (e.g. @3 and 10) for requesting the videotex information from the service provider that is identified by the "user specific subscriber datum", wherein this requested information includes:

        1. Computer software;

---

[6] The fact that the user must "subscribe" to the service is evident by the fact that each receiver station is provided with a unique address and the videotex data provided by the videotex service provider is "addressed" thereto.

2. Picture data for display as an overlay over displayed TV signaling; and

3. Picture data for display by itself.

e) Circuitry (e.g. @ 1) for receiving a TV signal information transmission from the service provider (figure 1), wherein:

1. This received information transmission includes "discrete signals" embedded therein (e.g. figure 1);

2. The "discrete signals" comprise packets/blocks of teletext data (e.g. figures 1 and 2); and

3. A plurality of the "discrete signals" (i.e. "first", "second", "third", etc,...) carry respective portions (i.e. "first", "second", "third", etc,...) of the requested information [inherent whenever the requested information comprises computer software or multiple rows of videotex given the limited amount of digital data (i.e. a "row" of text) that can be conveyed via the limited bandwidth of each embedded Teletext packet/block] [7];

f) Circuitry (e.g. @ 2) for "detecting" and extracting the "discrete signals" from the received information transmission;

g) A transmission line for passing the detected/extracted "discrete signals" to a processor (e.g. @ 3 and 4);

H) Circuitry (e.g. @ 3 and 4) for obtaining the respective portions (i.e. "first", "second", "third", etc, ...) of the requested information from the respective plurality of "discrete signals" and for "organizing" the obtained portions back into a complete unit of requested information (e.g. the "screen" of videotex data stored @ 4);

I) Circuitry (e.g. @ 3 and 4) for generating a signal representing a videotex image, wherein this image signal generation is obtained by:

1. Processing the "subscriber specific datum" (e.g. it is the "subscriber specific datum" that is processed to

---

[7] Note part "4)" in paragraph I of this Office action.

determine the videotext image that is requested and
generated); and

**2. Reading the "organized" videotext data from memory
(@ 4) in synchronism with the horizontal and vertical
("H" and "V") provided thereto;**

J) Switching circuitry (e.g. @ 5) for outputting a presentation
to the user that is, in part, "based on" the organized signaling
stored in memory. That is:

**1. At times, the outputted presentation comprises the
"video image" component of the received TV signal [e.g.
when signal V3 is manually selected for output by the
keyboard @ 16 (note lines 17-23 on page 6 of the Oono
et al translation)]; and**

**2. At other times, the outputted presentation comprises
said "video image" overlaid in a spatially coordinated
fashion (@ 6) with the generated videotext image [e.g.
when signal V2 is manually selected for output by the
keyboard @ 16 (note lines 17-23 on page 6 of the Oono
et al translation)] .**

3) Specific arguments that have been raised by applicants:

a) To transmit a unit/"page" of Teletext data via the vacant
lines of a TV signal transmission, the unit/"page" of data must
be broken down into a plurality of smaller portions, wherein
each portion is of a size that can be conveyed by a respective
teletext packet/block. On the receiver side of teletext systems,
these portions must be extracted from their respective
packets/blocks and "organized" back into a complete
"unit"/page format.

> "The data transmissions occur row by row at a
> relatively high data rate, which dictates that high
> speed means for storing and _reorganizing_ the
> transmitted data to page form _must_ be provided at the
> receiver" (emphasis added)
> *[Lines 34-37 in column 1 of US Patent #4,099,259]*

Contrary to the position taken by applicants' in that last 3 lines
of page 24 and the first 4 lines of page 25 of the response filed

9/2004 in SN 08/470571, the fact that the RAM/memory (4) of
Oono et al. is described as holding a "screen's" worth of
transmitted videotext data as well as the fact that it is shown
as receiving the vertical sync signal "V", provides an implicit
indication that the "organizing" of transmitted videotex signal
portions was an inherent and necessary operation of the Oono
et al. receiver; i.e. it takes many videotex packets/blocks to
carry all the portions or data needed to assemble a screen's
worth of videotex data at the receiver.
Here, it is also noted that the arguments raised by applicants'
in lines 17-26 on page 24 of the response discuss limiting
features that are not recited/claimed. That is, these
arguments clearly rely on passages from the disclosure, rather
than recitations of the claim, to overcome the applied prior art.

b) In lines 8-10 on page 20 of the response filed 9/2004 in SN
08/470571, applicants' allege that the recited term "user
specific data" (and variants thereof) should be construed to
mean:

> "[D]ata that relates to a particular receiver station
> or to the user or users of that receiver station, and
> which may be, but does not necessarily have to be
> unique to that particular station or users".

As noted above, even if adopted, this definition fails to
distinguish that which is claimed over the applied teletext prior
art. That is, the "user data" that is inputted by a user of a
teletext receiver station in order to request the receipt and
display of the desired page of teletext data, is "user specific
data" even in the context of applicants own cited definition.
More specifically, the data that is entered by the user of a
teletext receiver clearly "relates to the particular user" in that it
literally identifies the specific page of teletext data that said
user desires and has specifically requested.
And again, while not necessarily at issue, applicant is correct
in that the examiner does believe that the "user specific data"
terminology/label is itself so broad, even as defined above,
that it:

> "[I]nvites rejections based on references that simply
> disclose user selection of an option from a list of
> available choices"
> [note lines 2 and 3 on page 20 of the response filed
> 9/2004]

That is, "data" that is inputted by a user to identify a specific choice/option specifically selected by that user, is itself "user specific data". Such "user specific data" may even be "unique" to the given user depending on the selections/choices made by the "other" users (i.e. depending on whether or not any of said other users made inputted data corresponding to the same choice/selection). [8]

c) In the last 3 lines of page 25 of the response filed 9/2004, applicants argue that the "user specific" request data entered by the user at the station in <u>Oono et al.</u> "is not used to generate the image to be superimposed at the end receiver station". The examiner notes that, in <u>Oono et al.</u>, it is the "processing" of the inputted request datum by the described teletext system that results in the generation of the specific/requested image at the receiver station. The actually recitation in question, e.g. line 11 of claim 187, is very broad and requires nothing more!

---

[8] Note that in one-way teletext systems there are typically hundreds of pages to choose/select from while in two-way systems the number of pages to choose/select from can be unlimited.

B) Concerning the rejection of claims 188 and 189 under section 102 (b) by Oono et al.:

1) The examiner notes that broad recitations of claims 188 and 189 only require:

a) The generation of a "receiver specific control signal" based on some unspecified "third discrete signal",

Wherein said generated "receiver specific control signal" controls a "receiver" to "select" the video presentation that is presented at the receiver.

2) Oono et al. disclose a system that was implemented within the "television or CATV broadcasting" environment [note line 1 of claim 1]; i.e. wherein said "television or CATV broadcasting" environments are inherently "multi-channel" in nature. While not explicitly stated in Oono et al., the examiner maintains that one of ordinary skill in the art would have recognized the fact that the "television or CATV broadcasting" receiver station shown in figure 3 of Oono et al. necessarily comprised the required RF tuner (e.g. @ 1 of figure 3) which enabled the receiver to select and receive a desired one of the TV channels for display/presentation thereat. Such a TV tuner inherently comprises RF mixing circuitry for demodulating the selected RF TV channel in response to a tuning "control signal" that is generated by the local oscillator of the tuner based on a "third" discrete channel selection signal inputted by the user.

C) Concerning the rejection of claims 191 and 192 under section 102 (b) by Oono et al.:

1) In the first paragraph on page 27 of applicants' response filed 9/2004, applicant contends that the "receiver specific" terminal address data of Oono et al. is not "user specific subscriber datum" that is:

"[B]ased on information 'supplied by a user of [the] receiver station' as required by claims 191 and 192".

The following is noted:

a) Contrary to applicant's position, the limitations of claims 191 and 192 do not require the datum to be "supplied by the user" as argued; and

b) Further, although confusing, applicants' alleged "proper"
definition of the "user specific" terminology explicitly
includes/encompasses datum that is merely "receiver
specific":

> *"The term 'user specific data' should be properly
> construed to mean data that relates to a particular
> receiver station* or to the user or users of that
> receiver station, and which may be, but does not
> necessarily have to be unique to that particular
> station or users". (emphasis added)
>
> [note lines 8-10 on page 20 of the response filed 9/2004 in
> the response filed 9/2004 in 08/470,571]

Applicants' definition appears to assume that each "receiver
station" used by a respective user, and data "related" thereto,
are inherently "user specific". For the purpose of this
rejection, the examiner has simply adopted applicants'
position that "receiver specific datum", i.e. the station/terminal
"address" datum described in <u>Oono et al.</u>, constitutes "user
specific datum" too (i.e. in accordance with applicants' own
alleged proper meaning of said "user specific" terminology).

D) Concerning the rejection of claim 56 under section 102 (b) by Oono et al.:

1) For reasons already addressed above, the examiner maintains that
a fair reading of the "user specific" label contributes nothing
"allowable" to the subject matter being claimed;

2) As noted by applicants on page 28 of applicants' response filed
9/2004, with respect to <u>Oono et al</u> the examiner has asserted:

> The CPU (@ 3 of figure 3) which, by executing control software therein,
> processes the received videotext data and the user entered information to
> cause the "local generation" of a videotext image which is stored in a local
> memory (@ 4 of figure 3).

In response to this assertion, applicants argue that the examiner has
failed to:

> "[P]rovide any analysis regarding how and why the Oono system teaches
> or discloses the execution of processor instructions to process remotely

originated data and user specific data and a video apparatus to generate an image"

With respect to this argument, the following is noted:

a) A CPU, by definition, is a processing device that performs its processing by executing "software" stored therein wherein "software", by definition, constitutes "processor instructions". The CPU (3) in Oono et al. is such a device;

b) As illustrated in figure 3 of Oono et al., the processing   )
performed by the CPU (3) of Oono et al. includes:

1. The receiving and processing of all of the "user specific" inputs that are inputted to the receiver, by the user, via the keyboard (9);

2. The receiving and processing of all of the "remotely originated videotext data" that is extracted (@ 2) from the video signal transmission that is received (@ 1) by the receiver; and

3. The "generation" of the videotex image that is outputted to the refresh memory (@ 4) by processing portions of the extracted videotext data according to one and/or ones of the inputted "user specific" data.

E) Concerning the rejection of claims 57 and 58 under section 102 (b) by Oono et al.:

1) As noted above, the CPU (3) disclosed in Oono et al. is, by definition, a software driven device. As such, said CPU must necessarily be programmed, e.g. by actively programming it, with the software that drives it.

F) Concerning the rejection of claims 58 and 71 under section 102 (b) by Oono et al.:

1) As noted above, the CPU (3) disclosed in Oono et al. is, by definition, a software driven device. Specifically, the CPU (3) in Oono et al. is programmed with the software (e.g. a "processor instruction") which tells it how to request, select, receive, and process the videotext data that is conveyed to it;

2) As evidenced by the "prior art" record, the examiner maintains that videotext data itself, i.e. including that which is described in Oono et al., comprise respective series of "instruction signals" which, when selected and processed by the receiver, tells the receiver how to "locally generate" the specific videotext image that is desired/requested by the user.

"The first step in teletext service is the translation by a teletext editor of text, pictorial information and display attributes (such as color, flashing characters and so on) into a *series of instructions* to be transmitted to the teletext decoder. The instructions for each page in the teletext 'library' are then broadcast continuously on a revolving basis by multiplexing the data into the vertical blanking interval. The user accesses a desired page of teletext information by entering the page number, e.g. by pressing the appropriate buttons on a control unit. The teletext decoder then selects the page from the revolving transmission, stores the coded information in memory, processes that information to the extent necessary for display, and produces the page on the television screen. Where captioning is transmitted, the decoder will superimpose the captioning over the normal television picture" (emphasis added)
[Page 5 of the 3/26/1981 "Petition For Rulemaking" file with the FCC by the United Kingdom Teletext Industry]

"[Videotex] data transmitted do not represent directly the picture which is generated in the receiver, but encoded instructions to the receiving decoder"
[Lines 8-10 under the heading "1-Scope" on the first page of the article "The Concept of a Universal 'Teletext' (Broadcast and Interactive Videotex) Decoder, Microprocessor Based]

> **"The [teletext] receiving equipment can be conventionally thought of as consisting of three sections: a) signal acquisition, b) memory, c) _display generation._ The signal is acquired and suitably processed before being loaded into memory. Memory is repeatedly accessed by the display generation section _to obtain the instructions_ which direct it to _create the images of alphanumeric and graphic characters_ and place them on the screen"** (emphasis added)
>
> [The first paragraph under the heading "Receiving Equipment Options" on page 539 of the 1980 article "THE ROLE OF THE TELEVISION RECEIVER MANUFACTURERE IN THE UNITED STATES" by <u>Ciciora et al.</u>]

3) That is, in <u>Oono et al.</u>, CPU (3) is inherently programmed with the "processor instruction" software which tells it how to select and process videotext "instruction signals" for the purpose of locally generating the desired videotext image that has been "specifically" requested by the user.

G) Concerning the rejection of claim 63 under section 102 (b) by Oono et al.:

1) In <u>Oono et al.</u>, that data that is conveyed to and from the transmitter station is clearly digital data. In the broadest sense, the channel that conveys this digital data is a "digital channel" regardless of whether the carrier itself is analog or digital.

H) Concerning the rejection of claims 65-72 under section 102 (b) by Oono et al.:

1) Applicants seem to suggest that <u>Oono et al.</u> does not represent a conventional "videotext"/"teletext" device simply because, at least as currently translated, it does not literally comprise the "videotext"/"teletext" terminology. The examiner disagrees noting the ordinary level of skill in the art that has been established by the "prior art" of record; i.e. the context in which the <u>Oono et al.</u> "prior art" must be considered.

l) Concerning the rejection of claim 74 under section 102 (b) by Oono et al.:

1) A "computer", by definition, is nothing more than a device that computes. Clearly the CPU of <u>Oono et al.</u> falls within a fair reading of the "computer" terminology. The keyboard (9) in <u>Oono et al.</u> is a "local device" by which "selected information", e.g. such as an "instruct signal", is inputted to the CPU/computer.

III. With respect to specific ones of the arguments raised by applicants concerning the section 103 rejections:

A) Concerning the rejection of claim 73 under section 103 based on Oono et al. in view of Zworykin:

1) Applicants allege that the examiner does not apply Oono et al. for the purpose of showing a conventional TV distribution network [note the first full paragraph on page 32 of the response filed 9/2004]. Such is untrue. To the contrary, Oono et al. has been cited for its description of a hybrid videotext system that was, as described, to have been implemented within a conventional TV distribution network; i.e. either within a conventional broadcast TV distribution network or, alternatively, within a conventional CATV distribution network [e.g. line 1 of claim 1].

2) Applicant's also allege that there is no "motivation" for combination. Specifically, applicants' contend that it would not have been obvious to one of ordinary skill in the art to have "scrambled" the TV programming that was conveyed via the conventional TV distribution network described in Oono et al. The following is noted:

a) At the time of applicant's alleged invention, it was known to have used conventional TV distribution networks to convey "premium" TV programming to users who subscribe to, and pay a fee for, the premium TV service; i.e. thereby desirably raising additional revenue for the service provider [e.g. lines 21-68 in column 1 of Zworykin (US # 2,757,226)]. To ensure that the programming could only be received/viewed by those users who paid the fees, i.e. and to prevent the premium programming from being stolen/viewed by non-subscribers, it was known to have scrambled the premium TV programming during transmission through the network [NOTE: Zworykin (US # 2,757,226) and applicants own disclosure (e.g. lines 41-51 in column 5 of US #5,233,654)];

b) It is also noted that CATV distribution networks were inherently subscription based systems because they required a wire connection to be physically run from the CATV service provider into the house/"receiving station" of each user. Because of this required wire connection, CATV distribution networks were expensive to implement and maintain. Thus,

CATV system typically included subscription fees to be paid by the subscribers for the "premium" CATV service.

c) Given the above, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have used the conventional TV distribution network described in Oono et al. to have carried "premium" TV programming of the type described in Zworykin for the purpose of increasing revenue [i.e. motivation for the modification]. To prevent unauthorized people from "stealing" the premium service, and to ensure the collection of all fees, it would have been obvious to have scrambled said "premium" programming during transmission through the TV network.

3) In the first full paragraph on page 32 of the response filed 9/2004, applicant's allege that the Oono et al. system: Is not a subscription based system; and Does not have a need to scramble the signals that it transmits. The following is noted:

a) As described, the Oono et al. system is a two-way transmission system in which user requested information is provided from a service provider via unique terminal addresses that have been assigned, e.g. registered by the service provider, to the terminals. Such a scheme clearly smacks of being subscription based;

b) Contrary to applicants' suggestion, the presence of the unique addresses provides an incentive for scrambling. Namely, it would be a relatively simple task for an unauthorized person to load his/her terminal with address data pertaining to other users in order to "steal"/view the service that is provided to the authorized users. Scrambling is a conventional way of preventing/deterring such unauthorized use of a TV service.

B) Concerning the rejection of claim 56 under section 103 based on Hedger in view of Sedman and either: 1) Yoshino or 2) Bart:

1) In the first seven lines on page 5 of the response filed 9/2004, applicants' try again to suggest that videotext images (e.g. teletext images) are not "locally generated" images because they are generated from video text data that is transmitted to the receiver from a remote videotext data source. However, as addressed above and throughout the record, the teletext data that is transmitted from the remote locations does not comprise images to be displayed, but rather the transmitted teletext data represents respective series of instructions each of which tells the receiving station how to "locally generate" the teletext image represented thereby for display/overlay thereat; a fact that was notoriously well known in the art.

"**The first step in teletext service is the translation by a teletext editor of text, pictorial information and display attributes (such as color, flashing characters and so on) into a *series of instructions* to be transmitted to the teletext decoder. The instructions for each page in the teletext 'library' are then broadcast continuously on a revolving basis by multiplexing the data into the vertical blanking interval. The user accesses a desired page of teletext information by entering the page number, e.g. by pressing the appropriate buttons on a control unit. The teletext decoder then selects the page from the revolving transmission, stores the coded information in memory, processes that information to the extent necessary for display, and produces the page on the television screen. Where captioning is transmitted, the decoder will superimpose the captioning over the normal television picture**" (emphasis added)
[Page 5 of the 3/26/1981 "Petition For Rulemaking" file with the FCC by the United Kingdom Teletext Industry]

"**[Videotex] data transmitted do not represent directly the picture which is generated in the receiver, but encoded instructions to the receiving decoder**"
[Lines 8-10 under the heading "1-Scope" on the first page of the article "The Concept of a Universal 'Teletext' (Broadcast and Interactive Videotex) Decoder, Microprocessor Based]

"The [teletext] receiving equipment can be conventionally thought of as consisting of three sections: a) signal acquisition, b) memory, c) *display generation*. The signal is acquired and suitably processed before being loaded into memory. Memory is repeatedly accessed by the display generation section *to obtain the instructions* which direct it to *create the images of alphanumeric and graphic characters* and place them on the screen" (emphasis added)

[The first paragraph under the heading "Receiving Equipment Options" on page 539 of the 1980 article "THE ROLE OF THE TELEVISION RECEIVER MANUFACTURERE IN THE UNITED STATES" by <u>Ciciora et al.</u>]

"It must be clearly held in mind that the [teletext] image displayed on the CRT *is synthetic video and that the synthesis is done locally*" (emphasis added)

[The first two lines under the heading "Synthetic Video" on page 545 of the 1980 article "THE ROLE OF THE TELEVISION RECEIVER MANUFACTURERE IN THE UNITED STATES" by <u>Ciciora et al.</u>]

"In a picture display device for displaying a mixed picture signal which signal comprises a conventionally received television picture signal and *a locally generated signal, such as a teletext sub-title...*"

[The first 6 lines in the abstract of GB 2,062,401 patent document to <u>Korver</u>]

"Picture display devices of such type, have a picture screen on which a mixed picture signal can be displayed are known. By means thereof pictures can be displayed in which *locally generated* characters, drawing elements and similar items can be superimposed on a normal picture, for example a moving picture transmitted, for example, by a transmitter and received in a conventional manner. *Such a signal can be generated by, for example, a teletext decoder in the display device*" (emphasis added)

[The first paragraph under the heading "Background of the Invention" in column 1 of US Patent #4,347,532 to <u>Korver</u>]

The recited "locally generated" label simply fails to distinguish applicants "locally generated" images over the "locally generated" images of videotex.

2) As to motivation for the combination:

a) <u>Hedger</u> discloses a system in which respective TV receiver stations were modified to include respective integrated software driven computing devices wherein each integrated computing device was comprised of a "microcomputer" (e.g. a microprocessor, ROM, & RAM) [SEE figure 1]. In the system disclosed by <u>Hedger</u>, said microcomputer at each station was capable of receiving, loading, and running any one of a plurality of available computer programs pertaining to a respective plurality of applications.
One of the applications described in <u>Hedger</u> pertained to computing of the current value of the user's stock portfolio. In this application, the user made his stock portfolio available to the microcomputer of his station and said station, running the appropriate downloaded software, obtained the latest values for the stocks of the user's portfolio from broadcasted Teletext pages and calculated the current value of the user's stock portfolio therefrom.

b) While <u>Hedger</u> does not appear to explicitly state how the computed results from the integrated microcomputer are displayed to the user, it seems obvious from the integrated structure of figure 1 that said result is likely displayed on the picture "tube" of the TV receiver via the "Teletext Decoder". Regardless of whether this is true, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have displayed the computed results as an overlay over the received TV programming given the showing of <u>Yoshino</u> or <u>Bart;</u> e.g. ones in which the computation of an integrated computing devices were *desirably* [9] displayed as an overlay over received TV programming.

c) While the system described by <u>Hedger</u> obtained current stock prices from the one-way version of videotex (i.e. Teletext), <u>Sedman</u> evidences that it was known to have been conventional to have obtained this same stock information from the two-way version of videotex (i.e. viewdata); i.e. in the two-way videotex version described by Sedman, the receiver station's software driven computing device contacted the

---

[9] The use of a single/common display screen is desirable because of cost (i.e. it costs less than two separate screens). Displaying the locally computed information as an overlay is desirable because it allows one to view the locally generated information without missing TV signal content.

remote service provider via a two-way telephone line and requested the stock portfolio information therefrom.

The examiner maintains that it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Hedger to obtain the stock prices via a two-way videotext connection, as opposed to the described one-way videotext connection, given the fact:

1. That, generically, one-way and two-way videotext systems were notoriously well known alternative ways of obtaining videotext data, each having their own well known advantages and disadvantages [10]; and

2. Sedman evidences the fact that those of ordinary skill in the art had recognized the two-way videotext system as having been an alternative for the one-way videotext system with respect to the specific stock portfolio application that is described in <u>Hedger</u>.

---

[10] E.g., two-way videotext systems (i.e. viewdata systems) cost more because of the required telephone connection but allow the user to have access to an unlimited amount of data, whereas one-way videotex systems (i.e. teletext systems) cost less because the entire database is cyclically conveyed to all users over unused lines of TV broadcasts but the size of the available database is limited.

C) Concerning the rejection of claim 57 under section 103 based on Hedger in view of Sedman and either: 1) Yoshino or 2) Bart:

1) With respect to claim 57, it is noted that on page 35 applicant's attack Hedger alone rather than addressing Hedger "as modified".

D) Concerning the rejection of claim 58 under section 103 based on Hedger in view of Sedman and either: 1) Yoshino or 2) Bart:

1) As shown in figure 1, the Telesoftware computer/"microcomputer" of the Hedger receiver station clearly receives, loads (i.e. "stores"), and runs the "processor instructions" that comprise the downloaded "telesoftware" for the desired application (i.e. the software for calculating the current value of the user's stock portfolio);

2) As shown in figure 1, the Telesoftware computer/"microcomputer" of the Hedger receiver station also clearly receives and processes all "instruct signals" inputted from the all peripheral devices of the system; i.e. "instruct signals inputted by the user via the "remote control keypad"; "instruct signals" inputted by the user via the "full keyboard"; "instruct signals" downloaded from the "cassette recorder"; etc, ...

3) In order for the receiver disclosed by Hedger to perform *all of the "steps"* that are associated with a specific Telesoftware application, e.g. applications that include the calculating the user's current stock portfolio value, the telesoftware pertaining to said specific application must necessarily be: requested by the user; received from the remote provider location via the videotext connection; loaded/*stored* in memory of the microcomputer in its entirety; run/executed by the microcomputer; and be provided with whatever inputted/*detected* information/instructions that is needs to perform the applications (i.e. the information pertaining to the content of the user's portfolio). One of the "steps" that must be performed by the receiver station is the "display" of the results of the application to the user (i.e. the calculated value of the stock portfolio).

E) Concerning the rejection of claims 60-62 under section 103 based on Hedger in view of Sedman and either: 1) Yoshino or 2) Bart:

1) Hedger pertains to a videotex system and videotex system implicitly comprise various identifiers. For example, in order to contact the videotex service provider via the two-way telephone connection as required of the modified system of Hedger, the receiver station of said system must be programmed with various "communication resource" identifiers such as the service provider's telephone number.

F) Concerning the rejection of claims 65 and 66 under section 103 based on Hedger in view of Sedman and either: 1) Yoshino or 2) Bart:

1) As addressed above, "discrete signals" are an inherent part of teletext signal transmissions. Organizing (i.e. "re-organizing") information from the discrete signals back into a complete information sequence is a necessary operation that must be performed by teletext decoders.

> "The data transmissions occur row by row at a relatively high data rate, which dictates that high speed *means for storing and reorganizing the transmitted data to page form must be provided at the receiver*" (emphasis added)
> *[Lines 34-37 in column 1 of US Patent #4,099,259]*

G) Concerning the rejection of claims 73 under section 103 based on Hedger in view of Sedman and either: 1) Yoshino or 2) Bart:

1) In the first full paragraph on page 37 of the response filed 9/2004, applicants argue:

> "The Office action points to no teaching in the applied art to show a subscription-type TV signal source requiring decryption"

As appears to be recognized by applicants' own disclosure, the examiner maintains that such subscription-type systems were notoriously well known to those of ordinary skill in the art:

> "As regards decoders and decryptors, many different systems exist, at present, that enable programming suppliers to restrict use of transmitted programming to only duly authorized subscribers. The prior art includes so-called

> 'addressable' systems that have the capacity for
> controlling specific individual subscriber station
> apparatus by means of control instructions transmitted in
> broadcasts. Such systems enable broadcasters to turn off
> subscriber station decoder/decryptor apparatus of
> subscribers who do not pay their bills and turn then back
> on when bills are paid"
>
> [NOTE:lines 41-52 of US #5,233,654]

The rejection of claims 73 relies on such conventional knowledge.

H) Concerning the rejection of claims 89-91 under section 103 based on Hedger in view of Sedman and either: 1) Yoshino or 2) Bart:

1) With respect to claim 90, as noted above and throughout the record, videotext images are images that are "locally generated" at the receiver station.

2) With respect to claim 89, it is noted that an overlay is, by definition, an image that covers/replaces only that portion of the background image on which it is overlaid.

3) With respect to claim 91, it is noted that TV programming comprises and audio component that is continuously outputted from the TV receiver with the TV programming [note the speaker that is shown in figure 1 of Hedger]; i.e. before, during, and after any overlay that may be overlaid thereon. Further, the audio component of a TV program necessarily describes, in words, information that is contained within the video portion [.i.e. even when the audio pertains to an interview between two people (i.e. "This is Mr. Jones"; etc,...).

I) Concerning the rejection of claim 93 under section 103 based on Hedger in view of Sedman and either: 1) Yoshino or 2) Bart:

1) As noted in the rejection, claim 93 was rejected for the same reasons that were set forth previously with respect to claims 57, 58, 60-63, 65, 66, 73, and 89-91. This reasoning incorporated the reason set forth for claim 56 too.

2) The examiner maintains that the "discrete signal" and "organizing" terminology of claim 93 does nothing to overcome videotex prior art being that videotext data was inherently transmitted as discrete signal that had to be "organized"/re-organized at the receiver stations to recover a complete information unit.

3) The overlaid image in the modified system of Hedger comprises the computed current value of the user's stock portfolio which is "locally generated" and, in the modified system, is overlaid over received TV programming in a spatially "coordinated" fashion. As described in Hedger, this value was computed by processing "user specific" portfolio datum supplied thereto:

> "Alternatively, by making the details of his shares portfolio known to the telesoftware program (possibly by loading it from a cassette recorder) the viewer could then use the program to access the stock market pages of teletext and compute the rise (or fall) in the value of the portfolio".

J) Concerning the rejection of claim 56 under section 103 based on Kirschner in view Bart:

1) As indicated in the rejection, Kirschner disclosed a videotext system in which each receiver station terminal:

a) Received user "specific subscription data identifying the videotex data services to which the user has subscribed;

b) Contacted a remote videotex data service after receiving the "user specific" subscription data;

c) Received remotely originated videotext data from the contacted remote videotex data service;

d) Comprised a microprocessor (30) which executed processor instructions (i.e. was driven by software) to process the remotely originated videotex data and said user specific subscription data "in order to" capture (@ 34) selected pages of the videotex data and "locally generate" (@ 38) a desired videotex image therefrom.

The locally generated videotex image was then displayed on a standard TV receiver (@12).

Claim 56 differs from Kirschner only in that Kirschner did not describe the display of the locally generated videotex image as occurring "simultaneously" with the display of video (e.g. a TV signal) that is provided from a remote video source.

Being a "television receiver", display element 12 of Kirschner was clearly capable of displaying video signals from remote TV signal sources in addition to the locally generated videotex images. Bart evidences the fact that it was known to have been desirable to provide TV receivers with circuitry that allowed locally generated videotex data to be displayed "simultaneously" with the TV programming, e.g. as an overlay in the "mixed display mode", thereby allowing videotex images to be viewed without interrupting the viewing of TV programming.

K) Concerning the rejection of claim 73 under section 103 based on Kirschner in view Bart:

1) Applicants state:

> **"The examiner asserts that it was notoriously well known in the art for the video signal to have been provided to the receiver in an encrypted format. Applicants disagree. To the extent that the Examiner is taking Official Notice that TV providers commonly encrypted the TV programming, applicant's transverse this assertion and request that the Examiner support this assertion with prior art"**
> [SEE the first full paragraph on page 43]

In response to this request, the examiner cites a portion of applicants' own instant 1987 CIP specification:

> **"As regards decoders and decryptors, many different systems exist, at present, that enable programming suppliers to restrict use of transmitted programming to only duly authorized subscribers. The prior art includes so-called 'addressable' systems that have the capacity for controlling specific individual subscriber station apparatus by means of control instructions transmitted in broadcasts. Such systems enable broadcasters to turn off subscriber station decoder/decryptor apparatus of subscribers who do not pay their bills and turn then back on when bills are paid"**
> [NOTE: Lines 41-52 of US #5,233,654]

In the context of applicants' admission, the examiner also notes:

Hendrickson [US #4,292,650];

Block et al. [US #4,225,884]; and

Zworykin [US #2,57,226].

L) Concerning the rejection of claim 187 under section 103 based on Betts in view Bart:

> **1) It is maintained that *fair* readings of the recited "user specific", "discrete signal", "locally generated", and "organized" terminologies of the claim contribute nothing to distinguishing that which is claimed over videotext/teletext "prior art" [NOTE: Section I of this office action concerning the "fair reading" of this terminology];**

> **2) With respect to Betts:**

> > **a) Each receiver station disclosed by Betts receives a TV signal "information transmission" having a plurality of "discrete signals" embedded therein, wherein each of said discrete signals represents a respective discrete packet of teletext data, and wherein each of the discrete signals is embedded in a respective discrete vacant line period of the VBI of the information transmission;**

> > **b) Each receiver station disclosed by Betts "detects" and "extracts" (e.g. @ 8) all of the embedded discrete teletext signals from the received information transmission, and "passes" the detected/extracted signals to at least one signal processor (e.g. including elements 11 and 13);**

> > **c) Each receiver station disclosed by Betts receives inputs from the user (@ 23) representing "user specific subscriber datum", wherein the inputted "user specific subscriber datum" includes at least one user specified teletext page ID code for identifying a specific page of teletext data that is desired by the user;**

> > **d) Each receiver station disclosed by Betts "processes" (@ CPU 13) said entered "user specific" ID code. Namely, the entered "user specific" ID code is held/"stored" within the receiver station (@ 13) so that it can be compared, e.g. over time, with the page ID codes that are contained within the extracted teletext packet signals that are "passed" thereto;**

> > **e) Each receiver station disclosed by Betts operates, when a "match" is detected between an incoming page ID code and the held/stored "user specific" ID code, to store (@ "15") all of a plurality "information" fragments that are contained within in**

the plurality of discrete packet signals that belong to the
user's desired page;

f) In storing (@ 15) all of said "information" fragments in their
proper order, i.e. be it sequential or otherwise, said
information fragments are "organized" back into a complete
"page" form;

g) Each receiver station disclosed by Betts "locally generates"
the desired teletext image that is to be displayed from the
"organized" data wherein, as noted above, said data was
obtained by "processing" at least one "user specific
subscriber datum"; i.e. the image generation occurs as a
result of said "processing".

The examiner continues to maintain that it would have been obvious
to have modified the receiver station described by Betts in
accordance with the teachings of Bart so as to allow each user to
select the "mode" of display: i.e. to select between a video mode, a
text mode, and a mixed mode as desired.

3) With respect to applicants' arguments:

a) Applicant argues that the recited "organizing" step, _as
described in the specification_, involves "organizing"
information transmitted by "signal words" which "may be"
transmitted "at various and varying locations" in the
information stream [e.g. NOTE: The last 11 lines on page 44 of
the latest response filed 9/2004].

The examiner maintains that it is improper to read such
limitations into the claims. Further, the examiner notes that
most of applicants' disclosure describes embodiments which
transmitted information was conveyed using the 1987 SPAM
packet structures of figures 2E-2K rather than the 1981 "signal
word" structure now argued by applicants. Being such, it is
unclear to the examiner, given the current arguments
submitted by applicants, whether the "organizing" step of the
claim effectively excludes applicants' own "SPAM" packet
signal transmission approach for the same reasons as is being
argued with respect to teletext packet signal transmissions?
Why? or Why not?

b) In the first line of the second paragraph on page 45 of the response filed 9/2004, with respect to the showing of <u>Betts</u>, applicant argues:

> **"Furthermore, the applied art fails to teach distinct steps of organizing discrete signals and generating an image"**

Here, noted that:

> 1. Other than being recited separately, there is nothing in the "organizing" and "generating" recitations of claim 187 that requires the "organizing" and "generating" steps to have been performed independently and/or in a some mutually exclusive fashion as now seems to be argued; and

> 2. Applicants' claim is directed to a method whereas the prior art of Betts describes an apparatus. It is maintained that elements within the Betts apparatus perform *distinct* "organizing" and "generating" steps as defined by the claim even though there is overlap in the processing/elements that performs these steps.

c) In lines 23-26 on page 45 of the response filed 9/2004, applicant argues:

> **"Not only is the examiner incorrect in asserting that the selected page number constitutes user specific subscriber datum, there is no suggestion in Betts that the selected page number is stored and sequentially processed to generate any image using the data stored in RAM (15)."**

The examiner notes the following:

> 1. The examiner maintains that the page number that is entered into the receiver by the user is "user specific" data for reasons adequately addressed above (e.g. the entered number identifies the specific page of data that the user desires);

> 2. The entered page number must be held/stored by the decoder at least for the period of time that is takes to

detect a match between it and one contained in the teletext data stream (i.e. a teletext decoder simply could not operate if the entered page number were not held/stored);

3) The entered page number is "processed" to the extent that is held/stored and compared to the page code of the incoming teletext data stream;

4) The noted "processing" of the entered page number results in the "generation" of the user specific teletext image at the receiver in that said processing causes the appropriate page data pertaining to the desired page to be "captured", "organized" in the memory of the receiver station (e.g. @ RAM (15), , so that the image can be generated therefrom."

d) In lines 9 and 10 on page 46 the response filed 9/2004, applicant argues:

"There is no showing in either Betts or Bart to coordinate the display of a locally generated image with a video image as set forth in 187"

The examiner maintains that such a showing is implicit in Bart:

1. Any time one video image is overlaid over another video image, the displays of the respective images must be spatially "coordinated" by the overlay system. That is, the video signals must be genlocked in both the vertical and horizontal directions to prevent one image from rolling within respect to the other;

2. By providing a receiver station with the display mode selection circuitry described in Bart, the user is provided with means to select between the video only display mode and the necessarily "coordinated" mixed/overlay display mode at will (i.e. a process which meets the "outputting" limitation of the claim).

M) Concerning the rejection of claims 188-191,193, and 194 under section 103 based on Betts in view Bart and further in view of "Crowther" as set forth in section E-25 of the last Office action:

1) Applicant argues that:

"The Office action fails to provide any motivation to combine the teachings of Betts and Crowther."
[Lines 6 and 7 on page 47 of the response filed 9/2004].

The examiner notes the following:

a) The decoder configuration disclosed by Betts was described, explicitly, as being an improvement over the "prior art" decoder configuration described in UK Patent #1,467,240 [Lines 46-49 on page 1 of Betts]. The applied "Crowther" patent is the US Patent equivalent of said UK Patent #1,467,240. Thus, the Betts decoder configuration represents, *explicitly*, an improvement on "prior art" decoder configuration that is shown in Crowther; i.e. *thereby providing explicit motivation for the "combination"*;

b) As described in Betts, the Betts decoder configuration improved upon the "prior art" configuration of Crowther in that the Betts' configuration utilized the illustrated CPU to perform the functions that had been performed by one or more of the dedicated circuit blocks of the Crowther configuration [e.g. Lines 50-53 of page 1]. Given such, the examiner maintains that it is both fair and proper to turn to Crowther patent in order to determine the functions that are performed by the CPU in Betts decoder configuration.

N) Concerning the rejection of claims 94, 95, 98, 103, and 106 under section 103 based on "Betts in view Bart" as set forth in section E-28 of the last Office action:

1) As noted by applicant's on in part "e." on page 47 of the last response, this rejection is based on "Crowther" too; i.e. the heading should read, "Betts in view of Bart and Crowther."

O) Concerning the rejection of claims 102, 109, 192, and 197 under section 103 based on Betts in view Bart and further in view of Oono et al. as set forth in section E-26 of the last Office action:

1) As noted by applicants in the first paragraph on page 48 of the response filed 9/2004, the examiner has taken the position that a key advantage offered by a CPU driven teletext decoder, i.e. that which is described in Betts, was its ability to be "re-programmed" as desired to provide different terminal functions: e.g., to allow the terminal to be configured as a Teletext terminal; to be configured as a Viewdata terminal; etc,... (note lines 70-78 on page 1 of Betts).
In the response filed 9/2004, Applicants now allege that:

> **"No re-programming is suggested in Betts"**
> (e.g. @ lines 12-14 of page 48).

Applicants' allegation is simply incorrect:

> **"It is however possible to provide several programs in one or more micro program stores and to switch from one program to the other under the control of the user control 21"**
> [Lines 61-65 on page 3 of Betts]

Additionally, the examiner maintains that it is improper to read and/or construe the teachings of Betts in a vacuum. The teachings must be read in the context of the level of skill existed at the time of applicant's alleged invention; I.e. one in which the advantages of such "re-programmable" Videotex terminals was notoriously well known.[11]

---

[11]   Indeed, the added flexibility offered by "re-programmable" CPU driven videotex decoders was notoriously well known in the art at the time of applicants' alleged invention:

> "*The processing unit is a microprocessor with its program in a ROM (or in a RAM).*
> *Its functions are:*
> *-to receive the codes from the buffer,*
> *-interpret them according to a given code table*
> *-to fill, consequently, the page store,*
> *-to interpret the codes from the keypad,*
> *-to initialize the data demultiplexor as before.*
>
> *Three different softwares may be set up:*
> *. the Teletext software,*
> *. the Antiope software with a general part and specific parts for handling either the data from   the demultiplexor or from the modem,*

2) Contrary to applicants' allegation, the CPU driven videotex decoder described by Betts was re-programmable to perform different terminal functions:

> **"It is however possible to provide several programs in one or more micro program stores and to switch from one program to the other under the control of the user control 21"**
> [Lines 61-65 on page 3 of Betts]

Betts indicated that said terminal functions that can be provided by the re-programmable terminal were not limited to the display of data provided via TV transmissions (i.e. Teletext"), but included the display of data from other sources including data modems (e.g. Viewdata):

> **"An advantage of the arrangement according to the present invention is that by alteration of the program a number of different functions may be obtained. For example the television display may be used to display information received not from a television transmission but fed from a data modem, from an attached key board, a magnetic tape unit or other data source"**
> [Lines 70-78 of page 1 of Betts]

While not listed as one of the "examples" in Betts, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have provided programming, to the re-programmable

---

. the *Viewdata software.*

As an example, we will give hereafter a complete description of a possible teletext software. An Antiope software is very similar and contains in addition a processing for error correction which is out of the topic of this paper, although of great interest. Other softwares may be implemented or loaded from a local memory (cassette or buble) or from the line (broadcast or telephone). Having simultaneously processing and display capabilities, such a Videotex decoder appears to be more than only that: it is a low cost communicating home terminal. In addition to their present function of providing pages, broadcasters and service providers of interactive data bases will be asked to provide a new kind of information i.e. software. Programs for Videogames or for home computing may be thus proposed to the user. This new market will have probably a great development."
[SEE the discussion under the heading, "3.2 – The processing unit", of the 1979 article by Marti entitled "THE CONCEPT OF A UNIVERSAL 'TELETEXT' (broadcast and interactive Videotex) DECODER, MICROPROCESSOR BASED."

terminal of Betts, to enable it to perform the "hybrid" Videotex terminal function that is described in Oono et al.; wherein the "hybrid" terminal function was known to have been desirable and advantageous because it combined the *best* feature of Teletext with the *best* feature of Viewdata [i.e., said "hybrid" Videotex configuration utilized the inexpensive TV transmission signal path of Teletext to make available to each user, by request, the unlimited database of Viewdata)].

P) Concerning the rejection of claim 187 under section 103 based on Crowther in view Bart as set forth in section E-18 of the last Office action:

1) It is maintained that *fair* readings of the recited "user specific", "discrete signal", "locally generated", and "organized" terminologies of the claim contribute nothing to distinguishing that which is claimed over videotext "prior art" [NOTE: Section I of this office action concerning the "fair reading" of this terminology];

2) Applicants argue that teletext decoders do not "organize" the Teletext data that they receive. Again, the examiner maintains that such a position portrays an unrealistically low level of skill in the art. Specifically, as addressed above, "discrete signals" are an inherent part of teletext signal transmissions. Organizing (i.e. "re-organizing") information from the discrete signals back into a complete information sequence is a necessary operation that must be performed by teletext decoders.

> "The data transmissions occur row by row at a relatively high data rate, which dictates that high speed **means for storing and reorganizing the transmitted data to page form must be provided at the receiver**" (emphasis added)
> *[Lines 34-37 in column 1 of US Patent #4,099,259]*

Q) Concerning the rejection of claim 84 under section 103 based on Millar in view of Marti as set forth in section E-19 of the last Office action:

1) It is maintained that *fair* readings of the recited "user specific", "discrete signal", "locally generated", and "organized" terminologies of the claim contribute nothing to distinguishing that which is claimed over videotext "prior art" [NOTE: Section I of this office action concerning the "fair reading" of this terminology];

2) Applicants argue that teletext decoders do not "organize" the Teletext data that they receive. Again, the examiner maintains that such a position portrays an unrealistically low level of skill in the art. Specifically, as addressed above, "discrete signals" are an inherent part of teletext signal transmissions. Organizing (i.e. "re-organizing") information from the discrete signals back into a complete information sequence is a necessary operation that must be performed by teletext decoders.

> "The data transmissions occur row by row at a relatively high data rate, which dictates that high speed ***means for storing and reorganizing the transmitted data to page form must be provided at the receiver***" (emphasis added)
> *[Lines 34-37 in column 1 of US Patent #4,099,259]*

3) For reasons addressed above, the examiner maintains that in order to overlay one video image over another video image, the respective images *must necessarily* be spatially "coordinated", e.g. genlocked both horizontally and vertically, to prevent one video image from "rolling" with respect to the other.

4) The examiner maintains that the input of the "user specific" page selection data at the receiver station causes the data pertaining to the selected page to be capture and the "locally generated" teletext image to be generated therefrom.

R) Concerning the rejection of claim 80 and 81 under section 103 based on Millar in view of Marti as set forth in section E-23 of the last Office action:

1) As noted by applicant in the paragraph that starts on page 57 and extends to page 58 of the response filed 9/2004, "Millar" described an application in which Teletext information was embedded within a video signal at a first location, transmitted to a second

"intermediate" location, and utilized at the second intermediate location to control, i.e. via the action of station personnel, the routing of the signal to a further receiving "station" location; i.e. wherein the signal that was routed corresponded to that portion of the transmission which pertained to a specific "program" identified therein.

S) Concerning the rejection of claim 93 under section under section 103 based on "MODE II" captioning:

1) Applicants themselves submitted as part of their extensive IDS submission, i.e. for consideration by the PTO, the document entitled "CBS/CCETT North American Broadcast Teletext Specification (Extended Antiope)" that is dated "May 20,1981" [NOTE: Appendix I of this communication].
In the latest AF response filed by Applicants on 9/2004 in SN 08/470,571, Applicants now challenges the "May 20, 1981" date of this document and whether the "Teletext Specification" set forth therein can be considered "prior art" against that which is claimed [SEE the paragraph which starts on page 61 and extends to page 62 of the response filed 9/2004]. In regard to this issue, the examiner notes the following:

a) First, that the document in question is not the only document of record which sets forth the CBS/CCETT Teletext Specification that is being relied upon by the examiner for its discussion of "MODE II" captioning. Namely:

1. The same "Teletext Specification" is set forth in a second document that has also been submitted by applicants that is entitled "CBS/CCETT North American Broadcast Teletext Specification" and dated "June 22, 1981" [NOTE: Appendix II of this communication]; and

2. Further, said same "Teletext Specification" is also set forth in a third document obtained by the PTO that is also entitled "CBS/CCETT North American Broadcast Teletext Specification" and is also dated "June 22, 1981" [NOTE: Appendix III of this communication]. The document obtained by the PTO, however, is a copy of the document that was filed with the FCC, by CBS, on "June 22, 1981" [e.g. NOTE: The "REPLY COMMENTS" filed with the FCC by RCA on 3/12/1982, wherein RCA indicates that the "North American Broadcast Teletext Specification (NABTS), proposed by CBS, Inc. (CBS)" was in fact "submitted to the Commission on June 22, 1981 (RM-3727)" (@ lines 4-6 on page 2 of the document of Appendix IV)];

b) With respect to a *publication date* for the "Teletext Specification" that is being relied upon, the following is noted:

1. Currently, the examiner does not know the origin of the first document that was submitted by applicants that is entitled "CBS/CCETT North American Broadcast Teletext Specification (Extended Antiope)" and is dated "May 20,1981". Thus, currently, the examiner is not able to verify the "May 20, 1981" date as being an actual "publication date".
However, it is noted that a document filed 7/21/1981 with the FCC, entitled "REPLY COMMENTS OF THE UNITED KINGDOM TELETEXT INDUCSTRY GROUP", indicates that the "CBS/CCETT North American Broadcast Teletext Specification (Extended Antiope)" document, now dated "June 9, 1981", had been submitted to the "CCIR Interim Working Party 11/3" as of the 7/21/1981 date of this document [SEE the footnote on page 2 of the document of Appendix I attached hereto];

2. As to the second document that was submitted by applicants, i.e. one which sets forth the same "Teletext Specification" as said first document, it is unclear from the current record as to whether or not Applicants are disputing the "June 22, 1981" date indicated on this document too? Clarification is requested.

3. As to the third document that has been obtained by the PTO, i.e. one which also sets forth the same "Teletext Specification" as said first document, the examiner maintains that the evidence of record shows that this document was "prior art" no later than the "August 3, 1981" FCC *"RECEIVED"* date stamped thereon, and indeed that the publication was most likely "prior art" as of the "June 22,1981" submission date indicated thereon.

Given the above, the examiner believes that there is sufficient evidence of record to establish the fact that the "Teletext Specification" being relied by the examiner, i.e. that which was set forth in the document in question, was "prior art" not only as of the 9/11/1987 filing date of applicants' instant 500+ page CIP specification from which the current claims necessarily hail, but that this "Teletext Specification" was "prior art" even as of the 11/3/1981

filing date of applicants' original 44 page parent specification (i.e. assuming, for a moment, that applicants might be entitled to the earlier 1981 filing date for that which is claimed by showing that the instant claims are directed solely to "common subject matter" described in both specifications).

2) It is maintained that *fair* readings of the recited "user specific", "discrete signal", "locally generated", and "organized" terminologies of the claim contribute nothing to distinguishing that which is claimed over videotext/teletext "prior art" [NOTE: Section I of this office action concerning the "fair reading" of this terminology];

3) In the second full paragraph on page 61 of the response filed 9/2004, applicants argue that the examiner's explanation and understanding of "MODE II" captioning cannot be used to reject the claims. The examiner agrees in part. The following is noted:

a. The examiner agrees that his explanation/understanding of "MODE II" captioning cannot be relied upon to reject the claims unless said explanation/understanding is *fully* supported by "prior art" (as is currently the case);

b. The examiner maintains that Teletext standards and specifications, i.e. such as the one being applied against the instant claims, are inherently drafted in a context where it is assumed that one skilled in the art already knows what Teletext is and how Teletext works. The examiner believes that much to most of the arguments that continue to be submitted by applicants against the applied prior art of record, merely go to questioning what Teletext is and how Teletext works and, therefor, portray an unrealistically low level of skill in the art. The examiner has gone to great lengths to try to address these arguments by trying to show, via cited prior art, what Teletext is and how Teletext works.

4) Contrary to applicants' assertion in the last 6 lines on page 62 of the response filed 9/2004, the datum inputted to his/her receiver station by a respective user to identify the specific language and level of captioning he/she desires, is unquestionably "user specific" datum given a fair a proper reading of such terminology.

Further, this entered "user specific" datum is unquestionably
"processed" at the user's receiver station in order to cause,
ultimately, the "local generation" of overlaid caption images of the
language and level that was specified by the inputted "user specific"
datum that was processed by the receiver.

**T) Concerning the rejection of claim 84 under section under section 103
based on "MODE II" captioning:**

1) As noted in the rejection, the "prior art" shows that the
information representing even the smallest of Antiope captions had
to be divided up and conveyed via a plurality of discrete teletext
packet signals. To recover a complete caption conveyed in such
fashion clearly required the information portions to be extracted
from the discrete packet signals and re-assembled/re-"organized"
back into the complete caption form.

The re-"organization" of data conveyed in the discrete teletext data
packet signals is simply a step/process that is implicitly performed
by all teletext decoders.

2) Applicants continue to argue that Teletext decoders do not
"organize" the Teletext data that they receive. Such a position
portrays an unrealistically low level of skill in the art. Specifically, as
addressed above, "discrete signals" are an inherent part of Teletext
transmissions. Organizing (i.e. "re-organizing") the
information/instructions carried within these "discrete signals", in
order to re-assemble complete information/instruction sequences, is
a necessary operation that must be performed by all Teletext
decoders.

> "The data transmissions occur row by row at a relatively
> high data rate, which dictates that high speed ***means for
> storing and reorganizing the transmitted data to page form
> must be provided at the receiver***" (emphasis added)
> *[Lines 34-37 in column 1 of US Patent #4,099,259]*

3) As to the first full paragraph on page 64 of applicants response
filed 9/2004, the examiner notes that "Antiope" is a conventional
form of Teletext and that the examiner's descriptions thereof are
supported by the art of record; e.g. the cited "Teletext Specification".

U) Additional issues argued with respect to the section 103 rejections:

1) With respect to the first full paragraph on page 66 of the response filed 9/2004, the examiner notes that Teletext information inherently comprises the "instructions" that tell the receiver stations how to "locally generate" the teletext images desired/selected by the users. The examiner believes that is a fact that has been has been adequately established within the instant record.

"The first step in teletext service is the translation by a teletext editor of text, pictorial information and display attributes (such as color, flashing characters and so on) into a *series of instructions* to be transmitted to the teletext decoder. The instructions for each page in the teletext 'library' are then broadcast continuously on a revolving basis by multiplexing the data into the vertical blanking interval. The user accesses a desired page of teletext information by entering the page number, e.g. by pressing the appropriate buttons on a control unit. The teletext decoder then selects the page from the revolving transmission, stores the coded information in memory, processes that information to the extent necessary for display, and produces the page on the television screen. Where captioning is transmitted, the decoder will superimpose the captioning over the normal television picture" (emphasis added)
[Page 5 of the 3/26/1981 "Petition For Rulemaking" file with the FCC by the United Kingdom Teletext Industry]

"[Videotex] data transmitted do not represent directly the picture which is generated in the receiver, *but encoded instructions* to the receiving decoder" (emphasis added)
[Lines 8-10 under the heading "1-Scope" on the first page of the article "The Concept of a Universal 'Teletext' (Broadcast and Interactive Videotex) Decoder, Microprocessor Based]

"The [teletext] receiving equipment can be conventionally thought of as consisting of three sections: a) signal acquisition, b) memory, c) *display generation*. The signal is acquired and suitably processed before being loaded into memory. Memory is repeatedly accessed by the display generation section *to obtain the instructions* which direct it to *create the images of alphanumeric and graphic*

***characters* and place them on the screen" (emphasis added)**

[The first paragraph under the heading "Receiving Equipment Options" on page 539 of the 1980 article "THE ROLE OF THE TELEVISION RECEIVER MANUFACTURERE IN THE UNITED STATES" by Ciciora et al.]

2) With respect to the second full paragraph on page 66, the examiner notes the following:

a) The examiner maintains that it was notoriously well known in the TV art for Network TV stations to embed conventional Teletext services within the VBI of the Network TV programming that it transmitted/broadcasted therefrom to intermediate/affiliate broadcast stations.

b) The examiner maintains, for reasons addressed above, that the "Teletext Specification" described in the document entitled "CBS/CCETT North American Broadcast Teletext Specification (Extended Antiope)", dated "May 20,1981", qualifies as "prior art" against the pending claims;

c) The examiner maintains that it would have been obvious to have used the note "Teletext Specification" to transport Teletext from the Network stations; i.e. in fact, at the time of applicant's alleged invention, a committee at the FCC was taking public comment as to whether this "Teletext Specification" should be adopted as the Official standard to be used by US broadcasters.

3) As noted by applicants, with respect to the limitations of claim 81, the examiner has taken *Official Notice* that it was known for notoriously well known for TV broadcasters to have embedded all sorts of control signals within their Network programming transmissions. Applicants disagree:

"Applicants traverse the Official Notice"

In support for the examiners position, one is directed to "APPENDIX D" of the Office action mailed 7/17/2002 in the present application (SN 08/470,571).

III. Other Issues:

1) The Section 120 priority:

1) In part "B." of the latest response, applicant suggests that the section 120 priority issue is moot because no intervening references have been applied against the latest amended versions of the pending claims. The examiner agreed with this position prior to applicants' latest AF response filed 9/2004. However, in applicant's latest AF response, applicants has challenged whether the applied "Teletext Specification" was published as of the 11/3/1981 filing date of applicants 1981 parent specification; i.e. it is unclear as to whether applicants' have also challenged the publication date of this Teletext Specification" as of the 11/3/1987 filing date of the instant CIP specification from which the instant claims now depend. The question arises as to whether applicants position relies on section 120 priority for that which is claimed.

2) As to the issue of section 120 priority, the examiner notes the following:

A) Applicant's parent specifications, as originally filed on 11/3/1981, described and claimed the user's patent portfolio data that is inputted at each station as being "unique" to each station/user. Given, the large number of stocks that are available to each user, the theoretically infinite number of shares thereof that might be owned by a user, and the limited number of users in the system, it seems reasonable to expect the portfolio data at each receiver station to be "unique" to each receiver/user; i.e. as was originally described and claimed.

In a 312 amendment filed at the end of prosecution of said parent application, applicants replaced the originally filed "unique" terminology with "user specific" terminology arguing that the "user specific" terminology was intended to cover situations in which the portfolio data entered at two of the station was the same. The examiner continues to question

whether applicant's parent specification, as originally filed, demonstrates:

> **1. That applicants possessed the "invention" that was recited as a result of the entered 312 amendment at the time applicants filed the application; or**

> **2. That Applicants recognized, at the time of filing, the significance of an "invention" in which the data being entered at each receiver station was the "same" and not "unique".[12]**

Given the above, the examiner continues to question whether the "user specific" terminology of the instant claims actually recites "common subject matter" that is entitled to section 120 priority back to the original 11/3/1981 filing date of the parent specification.

B) The examiner maintains that there is a clear difference in the meaning/scope of the "discrete signal" recitation when construed in terms of:

> **1. The 1981 "signal words" corresponding to discrete appearances of 1981 control/instruction/information, or portions thereof, within the information transmitted by the 1981 systems of applicants' 1981 parent specification; and, alternatively,**

> **2) The 1987 discrete "SPAM" packet signals of figures 2E-2K of the instant 1987 CIP specification that were used to carry 1987 control/instruction/information in the SPAM processes and apparatus that were described in applicants' instant 1987 CIP specification.[13]**

---

[12] The slight change in meaning/scope of the claim /terminology appears to be a very significant issue (e.g., given the fact that systems, such as the *Weather Star*, generate Teletext images at respective stations that are merely "specific" to each station/user and not necessarily "unique" to each station/user.

[13] While the "signal word" terminology was carried forward into the initial few pages of the 1987 CIP specification, the relationship between the 1981 "signal word" appearances and the 1987 "SPAM" packets (i.e. the signals of applicant's 1987 "SPAM" inventions), remains unclear and is not understood.

Given the above, the examiner continues to question whether the "discrete signal" terminology of the instant claims actually recites "common subject matter" that is entitled to section 120 priority back to the original 11/3/1981 filing date of the parent specification.

C) The examiner maintains that there it a clear different between:

1. The 1981 "instruction"/"instruct signals" that were carried within discrete "signal word" locations of the 1981 systems, which signals only triggered receiver side operations; and

2. The 1987 "instruction"/"instruct signals" that were carried by discrete "SPAM" packets signals within the 1987 "SPAM" apparatus/methods, signal word" locations of the 1981 systems, which signals included computer software for programming the receiver to perform receiver side operations.

Given the above, the examiner continues to question whether the "instruction" and "instruct signal" terminology of the instant claims actually recites "common subject matter" that is entitled to section 120 priority back to the original 11/3/1981 filing date of the parent specification;

D) etc,...

3) The examiner continues to disagree with applicants' argument concerning the "requirements" of section 120 on which their generic claim for section 120 priority, with respect to the claims of many applications, has clearly been based. In the latest response, applicants allege that it is "improper" for the examiner to comment on applicants' arguments concerning said requirements of Section 120. The examiner disagrees given the fact that the issue has neither been conceded nor withdrawn by applicants. Thus, for clarity of the record, the examiner is compelled to respond to applicants' arguments concerning this issue. Otherwise, one reviewing the

For example, where the 1987 SPAM packets, or even could the 1987 SPAM packets, be conveyed within the 1981 "signal word" location.

record might improperly conclude that the examiner conceded his
position concerning the requirements of section 120 when, in fact,
the examiner has not.

2) The "List of Common Issues":

1) Applicants 328 related applications, taken together, have
presented tens of thousands of claims to the Office for consideration
thereof.

2) During the prosecution of these 328 related applications, and the
ten of thousands of claims presented therein, it became evident that
"common issues" were being raised across different ones of the
related applications, and that these "common issues" were being
argued and treated differently by both the PTO and applicants from
application to application. In fact, at one time, applicants argued that
the different treatment of "common issue" between applications was
not improper because, so it was alleged, the file history of each
application stands alone.
In addition to the above, instances were also found by the PTO in
which an issues that was effectively withdrawn by amendment in one
of the 328 applications, would appear/reappear in another one of the
328 applications. The PTO found itself drafting
responses/arguments to a common issue over and over again.

3) In an attempt to address the problem noted above, e.g. to ensure
the consistent treatment of common issue among the many
applications, the PTO began to accumulate a "list" of the "common
issues" which appeared across ones of the 328 applications, wherein
this list set forth the position currently held by the PTO with respect
thereto. Presently, the instant examiner continues to maintain this
list by amending and updating it as needed to reflect changes in
prosecution history (e.g. for example, taking into account new
arguments and/or submissions presented by applicant concerning
ones of the listed "common issues").

4) Contrary to part "C" of applicants' latest response, given the fact
pattern noted above, the examiner finds nothing "improper" about
maintaining such a list of "common issues" specifically for the
purpose of trying to ensure the consist treatment of the "common
issues" among applicants' many pending applications. The
examiner knows of no situation in which the stated position

concerning a listed "issue" has been directly or indirectly conceded by the examiner/PTO and/or is the object of an adverse finding of a Court/Appeal. With respect to "Example 33", the "common issue" listed pertains to the well known "mixed display mode" of conventional videotex systems as understood by one of ordinary skill in the art at the time of applicants alleged invention, and not to any specific rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E HARVEY whose telephone number is (703) 305-4365. The examiner can normally be reached on M-F from 6 AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAVID E HARVEY
Primary Examiner
Art Unit 2614

APPENDIX I

CBS/CCETT

NORTH AMERICAN

BROADCAST TELETEXT

SPECIFICATION

(EXTENDED ANTIOPE)

MAY 20, 1981

APPENDIX II

64

CBS/CCETT

NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION

JUNE 22, 1981

SOFRATEV

APPENDIX III

CBS TELEVISION NETWORK ◉

NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION

JUNE 22, 1981

APPENDIX IV

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of)
)
Amendment of Part 73) BC Docket Number 81-741
to authorize the transmission) RM - 3727
of teletext by TV Stations) RM - 3876

REPLY COMMENTS

RCA Corporation (RCA), respectfully provides Reply Comments in response to the Comments filed by various parties in this proceeding.

RCA is an active participant in the development of the teletext marketplace and provides these Reply Comments based on experience, insight, and a sincere desire to ensure the success of the teletext service.

INTRODUCTION

RCA believes that the comments in favor of an open market environment approach are not convincing. Nothing contained in the Comments, filed by interested parties in this proceeding, has dissuaded RCA from its complete support for the only reasonable course of action available to the Commission on technical standards for teletext. Firstly, an appropriate

technical standard is required to ensure the orderly growth and development of teletext in the United States. Secondly, the superior choice for the United States teletext standard, in every technical respect now under study, is the North American Broadcast Teletext Specification (NABTS), proposed by CBS, Inc. (CBS) and submitted to the Commission on June 22, 1981 (RM-3727). Thirdly, there remains a potential interference problem that has yet to be resolved.

MANDATED SINGLE STANDARD

Support for a Single Standard

All three major networks support the single standard and provide substantial reasons for their positions. In addition, organizations of broadcasters such as the Public Broadcasting Service and the National Association of Broadcasters support a single standard. *This degree of agreement among the most important television service providers represents a compelling reason for adopting a single standard.*

RCA wishes to take this opportunity to address the arguments put forward by other commenting parties favoring the open market approach.

Relative Importance of Timing

The United Kingdom Teletext Industry Group argues that a major advantage of the open market approach is that broadcast teletext services could be initiated quickly whereas the adoption of a single standard would delay the service for some years both because of the delays

APPENDIX V

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.   20554

In the Matter of:)
)
Amendment of Part 73, Subpart E   )   RM No. 3876
of the Federal Communications   )
Commission Rules Governing Tele-   )
vision Broadcast Stations to   )
Authorize the Transmission of   )
Teletext   )

REPLY COMMENTS

OF

UNITED KINGDOM TELETEXT INDUSTRY GROUP

Bernard J. Rogers, Chairman

White Posts
High Street
Barley Royston, Herts.
ENGLAND   SG88H1

Bernard Koteen
Alan Y. Naftalin
Lisa J. Stevenson

Koteen & Burt
1150 Connecticut Ave., N.W.
Washington, D.C.   20036

Its Attorneys

July 21, 1981

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.   20554

In the Matter of:)
)
Amendment of Part 73, Subpart E   )   RM No. 3876
of the Federal Communications   )
Commission Rules Governing Tele-   )
vision Broadcast Stations to   )
Authorize the Transmission of   )
Teletext   )

REPLY COMMENTS

The United Kingdom Teletext Industry Group, Bernard J.
Rogers, Chairman, pursuant to Section 1.405 of the Commission's
Rules, files herewith this reply to comments which have been
made on its Petition For Rulemaking, which proposes the adop-
tion of rules to allow television broadcast licensees to trans-
mit teletext using the defined format British teletext system.

Subsequent to the filing of the British Petition For Rule-
making, AT&T announced, at the "Videotex '81" conference in
Toronto, Canada, a presentation level coding system that it
will use for development of interactive videotex in the
United States. Simultaneously, Telidon proponents, and CBS,
who has filed a petition for rulemaking proposing the Antiope
teletext system, announced that they would modify their
proposals to conform to the AT&T presentation level coding
system and submit these modified, and compatible, teletext
proposals to the FCC.

These developments have resulted in widespread confusion
about the implications for United States teletext development

of the AT&T announcement. Therefore, the following discussion will first address these developments, and particularly the question of whether compatibility with AT&T's announced videotex protocol should govern teletext standards, and will then respond to specific comments which have been made on the British teletext proposal. Our comments on the AT&T compatible teletext proposals are, of course, preliminary since those proposals have not yet been filed with the Commission. 1/ Once they are filed, we will be in a position to supplement and expand on the comments made here.

The following points, discussed in more detail below, warrant particular emphasis:

1. The AT&T presentation level protocol was designed for interactive videotex and is not suitable for teletext development in the United States. We understand that this protocol has been accepted by proponents of the competing teletext standards largely to achieve compatibility with the AT&T videotex proposal. However, the result appears to be a teletext standard which will require decoders so complex that the lowest level (mosaic) decoder will be approximately four times as expensive as the lowest level British decoder and

---

1/   Our understanding of these teletext proposals is based principally on the material in Telidon's comments on our Petition, the AT&T May, 1981 specifications for its "Presentation Level Protocol" and the "CBS/CCETT North American Broadcast Teletext Specification (extended Antiope)," dated June 9, 1981 and submitted to the CCIR Interim Working Party 11/3.